

Fig. 1

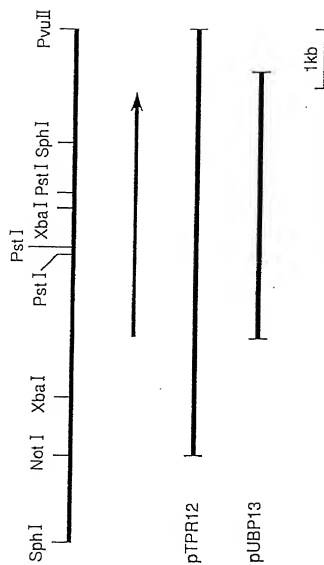


Fig. 2

	170		175		180
	Asp	Gly	Ser	Gly	Val
	Val	Val	Val	Ala	Val
	Leu	Asp	Thr	Gly	Val
5'-GAT	GGT	ACT	GGT	GTT	GTT
	GCA	GTA	CTT	GAC	ACG
	GGA	GTT	3'		

PRO-1F 5'-GGW WSD RRT GTT RRH GTH GCD GTD MTY GAC ACB GG-3'

Fig. 3

	365		370		375
	His	Gly	His	Gly	Thr
	His	Val	Ala	Gly	Thr
	Val	Ala	Gly	Tyr	
5'-CAC	GGT	CAC	GGA	ACT	CAC
	GTA	GCT	GGA	ACT	GTT
	GCT	GGT	TAC	3'	

PRO-2F 5'-KST CAC GGA ACT CAC GTD GCB GGH ACD GTT GC-3'

PRO-2R 3'-GTG CCT TGA GTG CAH CGV CCK TGH CAA CGM CSA-5'

Fig. 4

	590		595
	Ser	Gly	Thr
	Ser	Met	Ala
	Thr	Pro	His
	Val	Ser	Gly
	Val	Val	
5'-TCT	GGA	ACT	TCG
	ATG	GCT	ACT
	CCA	CAT	GTC
	AGC	GGT	GTC
	GTT	3'	

PRO-4R 3'-CCD TGV AGB TAC CGD WGA GGB GTR CAV YSG CCH C-5'

Fig. 5

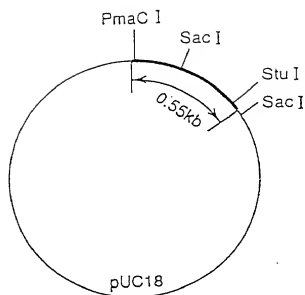


Fig. 6

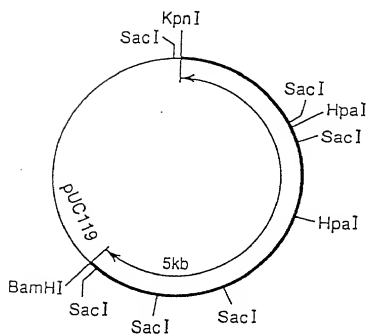


Fig. 7

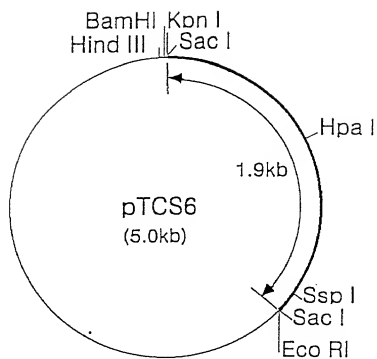


Fig. 8

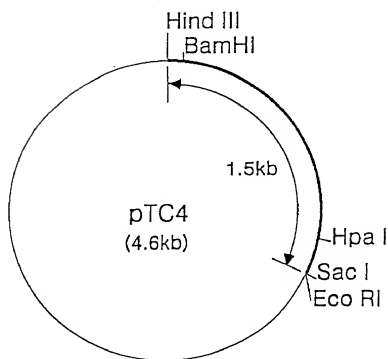


Fig. 9

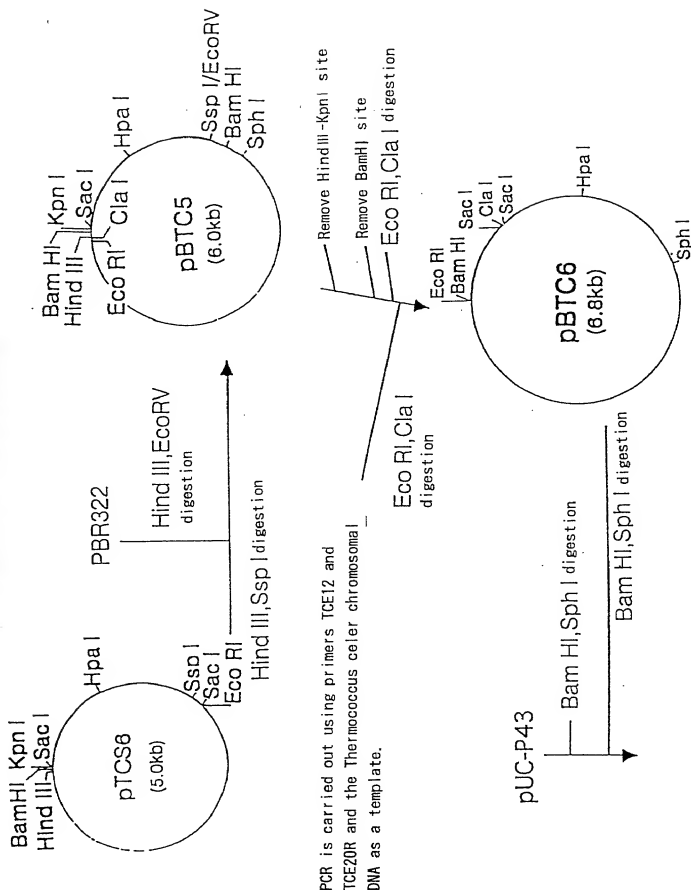


Fig. 9 (Cont'd)

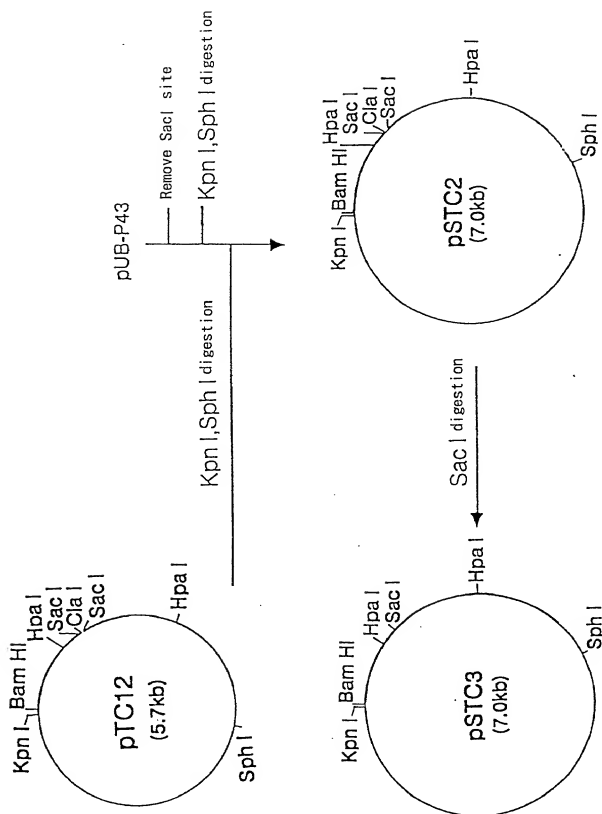
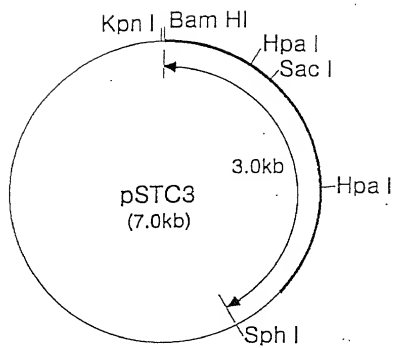


Fig. 10



PFUL	10	20	30	40	50
TCES	IAIMLLSVVP	VHFVSAETPP	VSSENSTTSI	LPNQVVTKE	
SUBTILISIN	MKRLGAVV	LALVLVGLLA	GTALAAPVKP	VVRNNAVQOK	MRGKKVMISL
PFUL	60	70	80	90	100
TCES	VSQAALNAIM	KGQPNMVLII	KTKEGKLEEA	KTELEKLGAE	ILDENRVLNM
SUBTILISIN	NYGLLTPGLF	KKVQRMWNQ	EVDTVMFGS	YGDRDRAVKY	LRLMGAQVKY
	LFALALIFTM	AFGSTSSAQ	AGKSNGEKKY	IVGFKQTMST	MSAAKKKDDVI
PFUL	110	120	130	140	150
TCES	LLVKIKPEKV	KELNYISSLE	KAWLNREVKL	SPPIVEKDVK	TKEPSLEPKM
SUBTILISIN	SYKIIPAVAV	KIKARDLILLI	AGMIDTGYFG	NTRVSGIKFI	QEDYKVQVDD
	SEKGGKVQKQ	FKYVDAASAT	LINEKAVKELK	KDPSVAYVEE	DHVAHAYAQS
PFUL	160	170	180	190	200
TCES	YNSTWVINAL	QFIQETGYDG	SGVWVAIVDT	GVDPNHFFLS	ITPDGRRKKII
SUBTILISIN	ATSVSQIGAD	TVMNSLGYDG	SGVWVAIVDT	GIDANHPDLK	GKVTGWYDAV
	VPYGVSQIKA	PALHSGYTG	SNKRVAVIDS	GIDSSHDPDLK	VAGGASMVPS
PFUL	210	220	230	240	250
TCES	EWKDFDDEGF	VDTSFSPSKV	VNGTLIINTT	FQVASGLTLN	ESTGLMEYVW
SUBTILISIN	NGRSTPYDDQ	-----	-----	-----	-----
	ETNPFQDNN-	-----	-----	-----	-----
PFUL	260	270	280	290	300
TCES	KTVVYSNVTI	GNITSANGIY	HFGLLPERYF	DLNFDGDQED	FYPVLLVNST
SUBTILISIN	-----	-----	-----	-----	-----

Fig. 11 (Cont'd)

PFUL	310	320	330	340	350
TCES	NGYDIAYVD	TDLDYDFTDE	VPLGOYNVTY	DVAVFSYYG	PLNYVLAEID
SUBTILISIN	-----	-----	-----	-----	-----
PFUL	360	370	380	390	400
TCES	PNGEYAVFGW	DGHGHGTHVA	GTAVAGYDSNN	DAMDWLSMYS	GEWEVFSRLY
SUBTILISIN	-----	-----	-----	-----	-----
PFUL	410	420	430	440	450
TCES	GWDYTNVTTD	TVOGVAPGAQ	IMAIRVLRS	GRGSMMDLIE	GMTYAAATHGA
SUBTILISIN	-----	-----	-----	-----	-----
PFUL	460	470	480	490	500
TCES	---DVTMS	LGGNAPYLDG	TDPEVAVDE	LTEKYGVFV	IAAGNEGFGI
SUBTILISIN	---KYGIRVINS	LGSSQSS-DG	TDLSQAVNN	AWDA-GIWC	VVAGNSGENT
PFUL	510	520	530	540	550
TCES	N--IVGSPGV	ATKAITVGAA	AVPINVGYYV	SQALGYPDYY	GFYYFPAYTN
SUBTILISIN	Y--IVGSPAA	ASKVITVGAV	DSNDN----	-----	-----
PFUL	560	570	580	590	600
TCES	VRIAFSSRG	PRIDGEIKEN	WVAPGYGYVS	SEFMWIGGAD	F-----MS
SUBTILISIN	--IASFSSRG	PTADGRLKEE	VVAPGVDBILA	PRASGTSMTG	PINDYYTKAS
	--RASFSVC	PELF-----	VMAPGVSTOS	TLEGNKYGA-	-----YN

PFUL	610	620	630	640	650
TCES	GTSMATPHVS	GVVALLISGA	KAEGIIYNPD	IILKVLESQA	FWLEGD PYTG
SUBTILISIN	GTSMATPHVS	GVAALIIQAH	PSWTPDKVKT	----ALLETA	DIVAPKEIAD
	GTSMASPHVA	GAAALISNH	PNWNTQVRS	----SLENTT	TKT-GS---
PFUL	660	670	680	690	700
TCES	QKYTELQCH	GLVAVTKSWE	ILKAINGTTL	PIVDHWADKS	YSDFAEVLGV
SUBTILISIN	-----TANGA	GRNVYKAIK	YDDYAKLITF	GSVADKGSAT	HTFDVSGATF
	-----FYGK	GLINQAQAQ *			
PFUL	710	720	730	740	750
TCES	DVIRGLYARN	SIPDIVEMHI	KYVGDTEYRT	FEIYATEPWI	KPFVSGSVIL
	VTATLYWDTG	SSDIDLXYLD	PNGNEVDYSY	TAYYGFEKVG	YYNPATAGTWT
PFUL	760	770	780	790	800
TCES	ENNTEFVLRV	KYDVEGLEPG	LYVGRIIIID	PTTPVIEDEI	LNTIVITPEKF
	VKVVSVKGA	NYQVDVUSDG	SLSQSGGGNF	NNPNPNPTP	TTDTQTFTGS
PFUL	810	820	830	840	850
TCES	TPENNYTLTW	YDINGPEMYT	HHFFTVPPEG	DVLYAMTTYW	DYGLVRPDGM
	VNDYWDTSDT	FTMNVNSGAT	KITGDLTFDT	SYNDLDLYLY	DPNGNLVDRS
PFUL	860	870	880	890	900
TCES	FVFPYQLDYL	PAAVSNPMPG	NWELVMTGFN	FAPLYESGFL	VRIYGVETTP
	TSSNSYEHVE	YANPAPGIWT	FLVYAYRTYG	WADYQLKAVV	YYG*
PFUL	910	920	930	940	950
	SVWYINRTRYL	DTNTEFSIEF	NITNIYAPIN	ATLIPIGLGT	YNASVESVGD

F i g. 1 2 (Cont'd)

PFUL	960	970	980	990	1000
	GEFFIKIEV	PEGTAELKIR	IGNPSVPNSD	LDLYLYDSKG	NLVALDGNPT
PFUL	1010	1020	1030	1040	1050
	AEEVVVEYP	KPGVYSIVVH	GYSVRDEGN	PTTTTFDLV	QMTLDNGNIK
PFUL	1060	1070	1080	1090	1100
	LDKDSIILGS	NESVVVTANI	TIDRDHPTGV	YSGIIEIRDN	EVVQDTNTSI
PFUL	1110	1120	1130	1140	1150
	AKIPITLVID	KADFAVGLTP	AEGVLGEARN	YTLIVKHALT	LEPVPNATVI
PFUL	1160	1170	1180	1190	1200
	IGNYTYLTDE	NGTVTFTYAP	TKLGSDEITV	IVKKENFNFTL	EKTFQITVSE
PFUL	1210	1220	1230	1240	1250
	PEITEEDINE	PKLAMSSPEA	NATIVSVEME	SEGGVKKTVT	VEITINGTAN
PFUL	1260	1270	1280	1290	1300
	ETATIVVPVP	KKAENIEVSG	DHVISYSIEE	GEYAKYVIIT	VKFASPVTVT
PFUL	1310	1320	1330	1340	1350
	VTYTYIAGPR	VSILTLNFLG	YSWYRLYSQK	FDELYQKALE	LGVDNETLAL
PFUL	1360	1370	1380	1390	1400
	ALSYHEKAKE	YYEKALELSE	GNI IQYL GDI	RLLPPLRQAY	INEMKAVKIL
PFUL	1410				
	EKAIEELEGE	E*			

Fig. 13

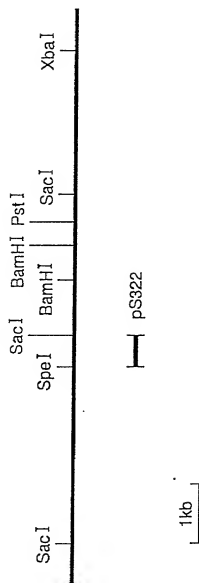


Fig. 14

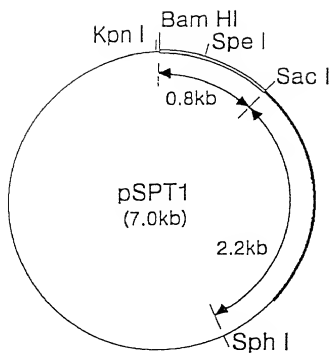


Fig. 15

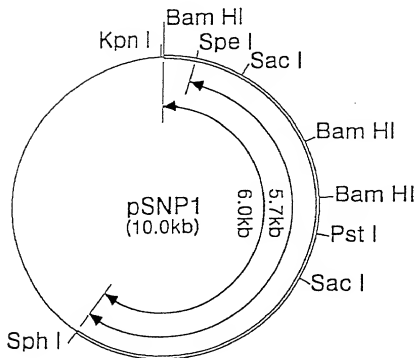


Fig. 16

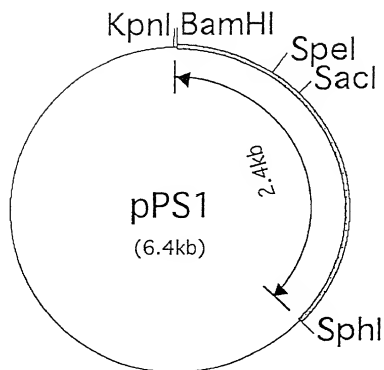


Fig. 17

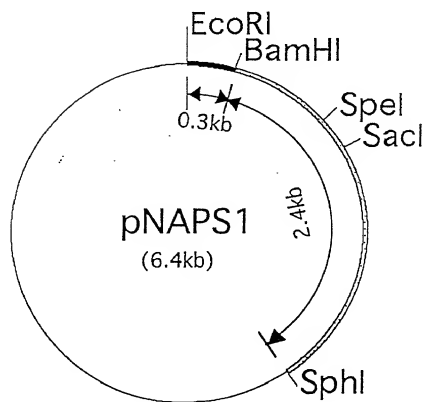


Fig. 18

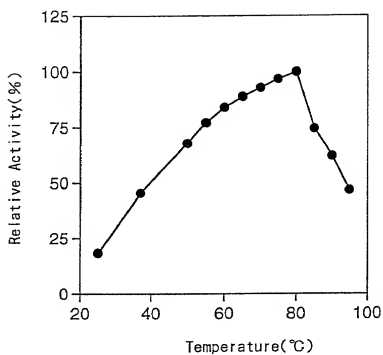


Fig. 19

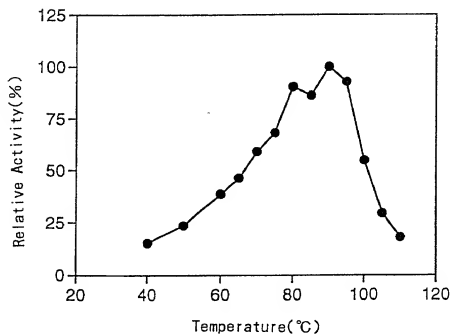


Fig. 20

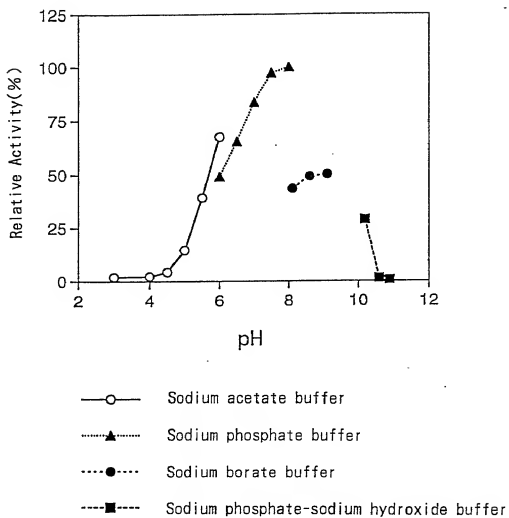


Fig. 21

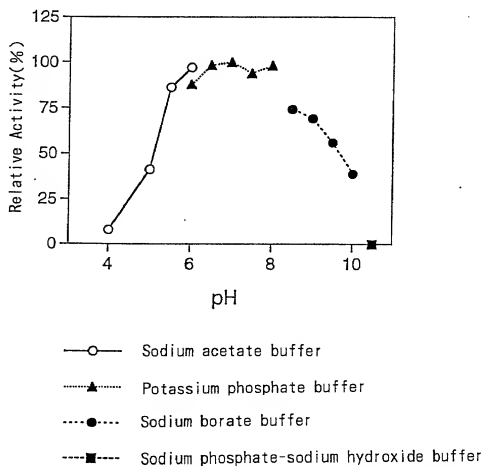


Fig. 22

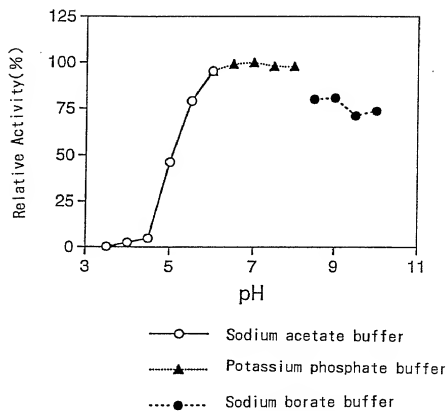


Fig. 23

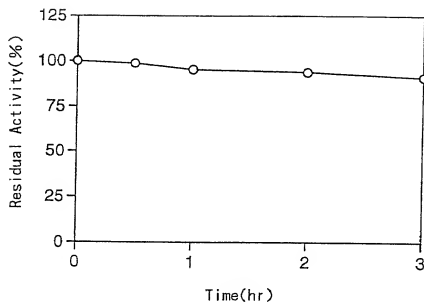


Fig. 24

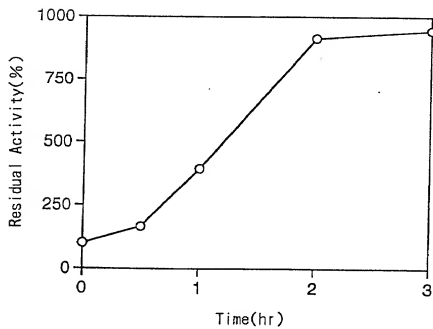


FIG. 25

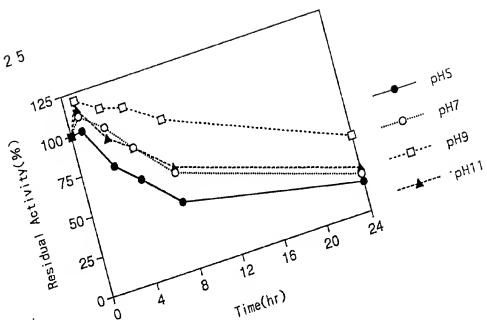


FIG. 26

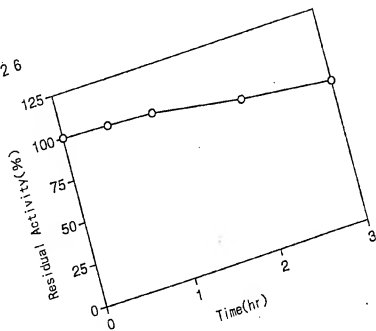


Fig. 27

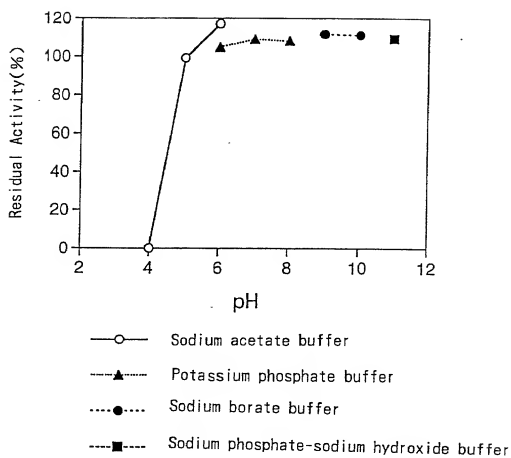


Fig. 28

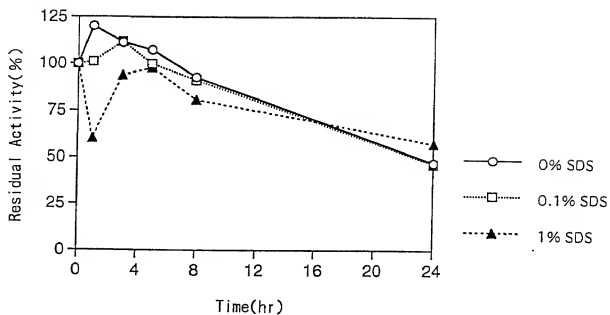


Fig. 29

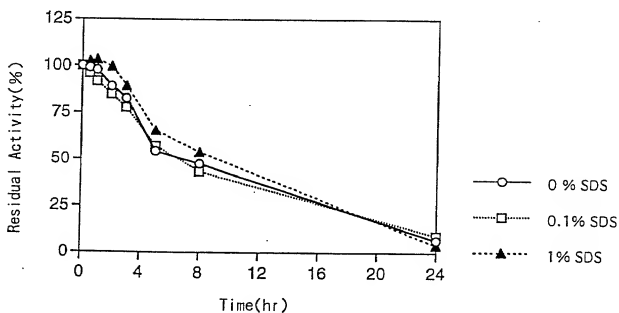


Fig. 30

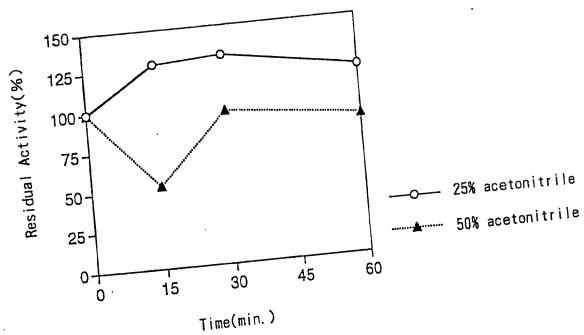


Fig. 31

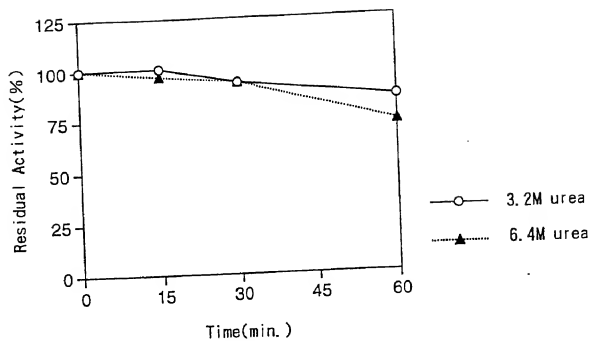


Fig. 32

